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Cooperative
**ECONOMIC INSECT
REPORT**

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ECONOMIC INSECT SURVEY AND DETECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

GREENBUG spread in Washington. Infestations noted in New Mexico and Texas. (p. 739).

FALL ARMYWORM larvae damaged small grain in Oklahoma and wheat in limited area of Mississippi. LESSER CORNSTALK BORER damaged wheat in one area of Oklahoma. HESSIAN FLY heavy in wheat in portion of Kentucky. (p. 739).

COTTON LEAFPERFORATOR larvae economic on cotton in portions of Texas. (p. 740).

GYPSY MOTH defoliated almost 2 million acres of woodlands in the Northeastern States in 1971. (p. 743).

Detection

New State records include a LACE BUG from California and a MEGALOPYGID MOTH from Tennessee. (p. 742).

For new county records see page 743.

Special Reports

Distribution of Oldhouse Borer. Map. (p. 746).

During the months of November, December, and January, there will be one issue per month of the CEIR. This act-on is being taken because of the reduced insect activity during these months and the need for the editorial staff to concentrate on special projects.

Reports in this issue are for week ending October 22 unless otherwise indicated.

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WEATHER OF THE WEEK ENDING OCTOBER 25

Reprinted from Weekly and Crop Bulletin supplied by Environmental Data Service, NOAA.

HIGHLIGHTS: The West continued cool and warm weather prevailed over the East. Some heavy rains in Virginia and over much of North Carolina.

PRECIPITATION: Snow fell in the Rocky Mountains and cold rain fell over the western Great Plains, in connection with a low pressure area centered over northeastern Colorado Monday October 18. Two inches of snow fell at Flagstaff, Arizona, Monday morning, bringing the total snow depth to 11 inches. Rainfall amounts ranged widely from less than 0.25 inch to more than 3 inches. Some of the larger amounts were Bismarck, North Dakota, 1.62 inches. Rain also fell in the warm humid air along the Gulf. About midweek, rain began spreading inland along the north Pacific coast, in connection with an approaching offshore disturbance. Heavy rains fell from Missouri to Texas at midweek. Daily totals at numerous stations in northeastern Texas exceeded 3 inches. Fort Worth received 2.64 inches Tuesday. Dallas received 2.55 in 24 hours and 1.32 inches in 1 hour. Heavy rains caused important rises along rivers and some flooding. Lighter rains also fell at midweek in Wisconsin, Iowa, Illinois, and over the Atlantic Coastal States from Virginia to Florida. Light rains fell almost daily in the Pacific Northwest with weekly totals ranging from 0.25 inch or less over inland sections to over 4 inches near Puget Sound. Snow fell in the mountains above about 5,000 or 6,000 feet.

TEMPERATURE: Early in the week, the low pressure center moved from northeastern Colorado to Manitoba. Cold air whistled southward west of system, and warm humid but pleasant weather prevailed over eastern half of the country. On Monday, maximum temperatures over the West ranged from the 40's over the Great Basin to the 60's in southwestern deserts. The mercury climbed to 65° at Phoenix, Arizona, and to only 31° at Flagstaff. On Tuesday morning, Flagstaff with a temperature of 6° was one of the coldest spots in the Nation. This is the coldest temperature of record for Flagstaff so early in the autumn. East of the system, afternoon temperatures reached the 70's as far north as the Dakotas, 77° at Aberdeen, South Dakota, Monday afternoon. The high 70's and 80's were common from the central Great Plains to the Gulf of Mexico. New England near the center of a high pressure area warmed to the 60's Monday. Temperature contrast between the cold West continued through most of the week. Chicago, Illinois, warmed to 84° Tuesday afternoon and subfreezing weather pushed far southward into New Mexico, where Roswell registered 32° Wednesday morning. The Southwest warmed at midweek. Weather of the week continued on page 744.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ARMY CUTWORM (Euxoa auxiliaris) - KANSAS - Early October blacklight trap catches indicated flight in central and west-central areas. (Bell).

ASTER LEAFHOPPER (Macrosteles fascifrons) - OKLAHOMA - Light, 0-8 per square foot, in small grain in Major County. Heavy, probably this species, in wheat in McClain County. (Okla. Coop. Sur.).

CORN EARWORM (Heliothis zea) - KANSAS - Statewide survey conducted during September in field corn. Total of 51 of 105 counties included in survey. Greatest yield losses occurred in 3 central crop reporting districts (2.1 to 2.6 percent). (Bell).

GREENBUG (Schizaphis graminum) - WASHINGTON - Distribution increased, with most notable infestations in Benton and Franklin Counties; reported as far north as Lind in Adams County. Ranged 200-400 per row foot in few fields in these areas, October 14. Expect about 10,000 acres to need treatment if increases continue. (Klostermeyer). NEW MEXICO - Ranged 0-2 per linear foot of wheat in Quay and Curry Counties. (Mathews). TEXAS - Infestations observed in Cottle, Motley, and Dickens Counties. Some controls applied. (Boring).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (Ostrinia nubilalis) - ALABAMA - Few larvae observed in late corn at Delta, Clay County. This is a new county record. Light in corn examined in Clay, Randolph, Tallapoosa, and Elmore Counties. (McQueen, Oct. 15). KANSAS - Fall survey showed that percent infested stalks about same as found in 1970. With exception of east-central district, populations generally lower than in 1970. (Bell).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - KENTUCKY - Collected in Edmondson, Simpson, and Allen Counties. These are new county records. (Barnett). KANSAS - Survey in southeast and south-central districts during September indicated populations lower in 1971 than in 1970. (Bell).

SORGHUM MIDGE (Contarinia sorghicola) - TENNESSEE - Continues heavy (15+ per head) in late milo in western areas. (Locke, Gordon).

SMALL GRAINS

FALL ARMYWORM (Spodoptera frugiperda) - TEXAS - Infestations did not develop in northern area as expected. Damage continues in Rolling Plains area. (Turney, Boring). OKLAHOMA - Larvae, 20 per linear foot, destroyed large wheatfield in Tonkawa area, Kay County. Ranged up to 20 per linear foot in Major County. Controls planned. Counts of 4 per square foot in Osage County. Heavy in Johnston, Love, Cotton, and Mayes Counties. Destroyed 30 acres of oats in Johnston County. Some spraying reported in Lincoln and McClain Counties. Moderate in Alfalfa, Canadian, and Coal Counties and light in Bryan County. (Okla. Coop. Sur.). MISSISSIPPI - Larvae defoliated field of wheat in Grenada County. (Robinson). ALABAMA - Light in scattered spots on rye in 100-acre field in Covington County. Volunteer corn in this field destroyed by larvae. Many larvae killed by predators. (Huggins).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - OKLAHOMA - Heavy on wheat in Roger Mills County. Damage severe in sandy fields. (Okla. Coop. Sur.).

HESSIAN FLY (Mayetiola destructor) - KENTUCKY - Heavy infestation on wheat planted in mid-September in Fayette County. (Barnett).

MOLE CRICKETS (Scapteriscus spp.) - FLORIDA - Damaged newly planted wheat and oats in experimental fields at Quincy, Gadsden County. (Greene).

TURF, PASTURES, RANGELAND

CHINCH BUGS (Blissus spp.) - TEXAS - Heavy infestations of B. insularis (southern chinch bug) in Brazos, Burleson and several south-central counties. (Cole, Green). WEST VIRGINIA - B. leucopterus leucopterus adults caused heavy damage to lawn in Braxton County. (W. Va. Ins. Sur.).

FALL ARMYWORM (Spodoptera frugiperda) - OKLAHOMA - Continues moderate in Bermuda grass in Johnston, Bryan, and Love Counties. (Okla. Coop. Sur.).

GRASSHOPPERS (Melanoplus spp.) - TENNESSEE - Mainly M. femurrubrum and M. differentialis caused heavy damage to fescue and clover pasture in Hardeman County. Controls recommended. (Locke).

FORAGE LEGUMES

ALFALFA WEEVIL (Hypera postica) - KENTUCKY - Adults 105 and larvae 460 per 100 sweeps of alfalfa in Fayette County. Damage noted. (Barnett).

CLOVER LEAF WEEVIL (Hypera punctata) - KENTUCKY - Adults 20 per 100 sweeps of alfalfa in Fayette County. (Barnett).

PEA APHID (Acyrtosiphon pisum) - NEW MEXICO - Slight increase, counts 25-50 per 25 sweeps of alfalfa in Quay County. (Mathews). KENTUCKY - Adults and nymphs 235 per 100 sweeps of alfalfa in Fayette County. (Barnett).

ALFALFA CATERPILLAR (Colias eurytheme) - NEW MEXICO - Larvae 6-8 per 25 sweeps of alfalfa near Tucumcari, Quay County. (Mathews).

PEANUTS

REDNECKED PEANUTWORM (Stegasta bosqueella) - NEW MEXICO - About 10 percent of terminals infested in fields checked in Roosevelt County. (Mathews).

COTTON

BOLL WEEVIL (Anthonomus grandis) - ALABAMA - Still heavy on top bolls and squares in all cotton examined in Lee, Chambers, Bullock, Crenshaw, Butler, and Covington Counties. From 1 to 3 top bolls per plant opening or trying to open in most fields with 1 to 4 locks damaged by young weevils and rot. (McQueen).

BEET ARMYWORM (Spodoptera exigua) - ALABAMA - Larvae, 1-5 per plant, defoliated late field of cotton in Covington County, especially new growth. (Foshee).

COTTON LEAFPERFORATOR (Bucculatrix thurberiella) - TEXAS - Heavy on cotton in some areas of Pecos and Reeves Counties. Some economic damage observed. (Neeb).

POTATOES, TOMATOES, PEPPERS

WHITEFLIES - NEW MEXICO - Unspecified species problem on tomatoes in commercial greenhouses at Corrales, Sandoval County. Very difficult to control. (Heninger).

COLE CROPS

THRIPS - WISCONSIN - Currently unverified, suspect Thrips tabaci (tobacco thrips) caused more trouble to cabbage growers than originally indicated. In southeastern area many acres of earlier varieties plowed up due to market rejection. (Wis. Ins. Sur.).

GENERAL VEGETABLES

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - Major problem of many lettuce growers in Salt River Valley. Controls not satisfactory in many cases in Maricopa County. (Ariz. Coop. Sur.).

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Egg counts heavy on young lettuce and depending on weather conditions could become serious problem at Yuma, Yuma County. (Ariz. Coop. Sur.).

DECIDUOUS FRUITS AND NUTS

ORIENTAL FRUIT MOTH (Grapholitha molesta) - CALIFORNIA - Heavy mining in twigs of pears in Kearney, Fresno County. (Cal. Coop. Rpt.).

SAN JOSE SCALE (Quadraspidiotus perniciosus) - UTAH - Severe in pear orchard at Brigham City, Box Elder County, heavy on fruit, twigs, and petioles (Davis, Knowlton); apricots damaged at La Verkin, Washington County. (Roberts).

PECAN WEEVIL (Curculio caryae) - MISSISSIPPI - Larvae 3 per 100 nuts sampled from orchard in Newton County. Some larvae entering soil. (Robinson).

TWIG PRUNER (Elaphidionoides villosus) - OKLAHOMA - Damage heavy to small limbs (up to 2 inches in diameter) of pecan in area in southern Atoka County and in Bennington area, Bryan County. (Okla. Coop. Sur.).

WALNUT CATERPILLAR (Datana integerrima) - ARKANSAS - Populations heavier than usual. Many walnut trees completely defoliated in north and west areas. (Boyer).

WALNUT HUSK FLY (Rhagoletis completa) - OREGON - Infested commercial walnut orchard for first time near Dundee, Yamhill County. Most larvae left husks and entered ground to overwinter. (Roberts, Larson).

CITRUS

Citrus Insect Situation in Florida - Mid-October - CITRUS RUST MITE

(Phyllocoptruta oleivora) infested 88 (norm 67) percent of groves; economic in 69 (norm 41) percent. Population above average and very high. Infestations of similar magnitude on leaves and fruit. Further increase expected until mid-November. Highest districts west, south, north, and central. East low.

CITRUS RED MITE (Panonychus citri) infested 26 (norm 23) percent of groves; economic in 3 (norm 5) percent. Population still normal and in low range but started upward trend which will persist through November. Rapid increase may be expected in about 5 percent of groves. Highest districts west, north, and south.

TEXAS CITRUS MITE (Eutetranychus banksi) infested 23 (norm 18) percent; economic in 3 (norm 4) percent. Starting to increase from normal low level. Heavy infestations likely to build up rapidly in scattered groves during next 2 months.

Highest district west. GLOVER SCALE (Lepidosaphes gloverii) infested 56 (norm 56) percent of groves; economic in 4 (norm 7) percent. Increased but still below

normal abundance and in low range. Gradual increase expected. Highest districts west and south. PURPLE SCALE (L. beckii) infested 46 (norm 53) percent of groves; economic in 1 (norm 2) percent. CHAFF SCALE (Parlatoria pergandii) infested 32

(norm 37) percent of groves; economic in 1 (norm 2) percent. YELLOW SCALE (Aonidiella citrina) infested 14 (norm 52) percent of groves; economic in none (norm 6 percent). Populations of these scales at low level in nearly all

districts. Little change expected. BLACK SCALE (Saissetia oleae) infested 61 (norm 35) percent of groves; economic in 30 (norm 13) percent. Population at highest level on record for October. It consists mostly of low or moderate infestations with very few heavily infested groves. Little change expected until cool

weather. Highest districts central, east, and south. AN ARMORED SCALE (Unaspis citri) 27 percent of groves; 20 percent moderately or heavily infested. Population will remain spotty and near level of past few months. Activity will become

less with onset of cooler weather. WHITEFLIES infested 91 percent of groves; economic in 30 percent. Populations of eggs, larvae, and adults increased and now in high range and much above normal. Decrease expected in November. All districts high. (W.A. Simanton (Citrus Expt. Sta., Lake Alfred)).

ORNAMENTALS

A LACE BUG (Corythucha montivaga) - CALIFORNIA - About 100 adults per leaf on wyethia plants in Mono County. Collected by E. Paddock on July 29, 1971. Determined by G. Buxton, confirmed by R.C. Froeschner. This is a new State record. Occurs in Montana, Wyoming, and Utah. (Cal. Coop. Rpt.).

FOREST AND SHADE TREES

WESTERN PINE TIP MOTH (Rhyacionia bushnelli) - CALIFORNIA - Survey indicates positive finds in "Sea World" at Pacific Beach, San Diego County. Extends distribution several miles north of previously known infestations. (Cal. Coop. Rpt.).

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - ARKANSAS - Heavy in pine in Saline and Hempstead Counties. (Boyer).

A MEGALOPYGID MOTH (Norape ovina) - TENNESSEE - Larvae damaged redbud in Knox County, September 24, 1971. Collected and determined by R.P. Mullett. This is a new State record. (Gordon).

POPLAR TENTMAKER (Ichthyura inclusa) - PENNSYLVANIA - Larvae caused up to 100 percent defoliation to 20 Salix babylonica in Westmoreland County and about 4 trees in Indiana County. (Barret, Henry).

AN APHID (Stegophylla quercina) - MARYLAND - Heavy on southern red oak (Quercus falcata) on June 1 near Salisbury, Wicomico County. Determined by T. Bissel. This is a new county record. (U. Md., Ent. Dept.).

PINE BARK APHID (Pineus strobi) - VIRGINIA - Nymphs heavy on white pines at commercial plant in independent city of Danville. (Allen).

BRONZE BIRCH BORER (Agrilus anxius) - OREGON - Survey in Pendleton, Umatilla County, nearly complete. Indicate infestations in all sections. Infestation not general. (Westcott, Penrose).

WALKINGSTICK (Diapheromera femorata) - ARKANSAS - General in western area hardwoods. Mating occurred past 2 weeks, egg laying underway. (Boyer).

MAN AND ANIMALS

HORN FLY (Haematobia irritans) - FLORIDA - Averaged about 17 per head on dairy cattle near Gainesville, Alachua County. (Butler). OKLAHOMA - Counts of 800 per cow and 1,500 per bull in Payne County and ranged 800-1,200 per head in Marshall County. Heavy in Cotton and Lincoln Counties and moderate in Cleveland and McClain Counties. (Okla. Coop. Sur.).

NORTHERN CATTLE GRUB (Hypoderma bovis) - ILLINOIS - Found in Ogle, Schuyler, Madison, Perry, St. Clair, and Williamson Counties. Collected by S. Moore, determined by D. Webb. These are new county records. (Ill. Ins. Rpt.).

SCREWORM (Cochliomyia hominivorax) - Total of 33 cases reported in U.S. October 17-23 as follows: TEXAS - Brewster 1, Hidalgo 1, Jeff Davis 2, Kinney 3, Terrell 3, Uvalde 1, Val Verde 5, Bowie 1, Burnet 1, Concho 1, Hays 1, Lampasas 6, Lee 1, San Saba 3, and Sutton 3. Total of 334 laboratory-confirmed cases reported in portion of Barrier Zone in Republic of Mexico as follows: Sonora 11, Chihuahua 190, Coahuila 64, Nuevo Leon 15, Tamaulipas 54. Total of 87 cases reported in Mexico south of Barrier Zone. Barrier Zone is area where eradication operation underway to prevent establishment of self-sustaining population in U.S. Sterile screwworm flies released: Texas 61,988,000; Arizona 2,820,000; Mexico 167,004,000. (Anim. Health Div.).

BENEFICIAL INSECTS

A BRACONID (Microctonus aethiops) - MARYLAND - Specimens recovered by dissection of Hypera postica (alfalfa weevil) by county: Washington (1) November 27, Montgomery (7) June, and Baltimore (13) June. Determinations by W.T. Hollaway. These are new county records. (U. Md., Ent. Dept.).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

EUROPEAN CRANE FLY (Tipula paludosa) - WASHINGTON - One adult female collected at golf course on Orcas Island during September. This is a new county record for San Juan County. Determined by W.J. Turner. (Goss).

GYPSY MOTH (Porthetria dispar) - About 1.94 million acres defoliated to some degree in 1971 in MAINE, NEW HAMPSHIRE, VERMONT, CONNECTICUT, MASSACHUSETTS, RHODE ISLAND, NEW YORK, NEW JERSEY, and PENNSYLVANIA. Most acres defoliated in Connecticut 655,107, Pennsylvania 598,200, and New York 479,150. (PPD).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Continues to attack late cotton in most north-central counties. (Turney). OKLAHOMA - Larvae found per 50 green cotton bolls by county: McClain 5; Garvin 3; Marshall 9; Love 23; Jefferson 27. Lint cleaner inspections positive in Cotton, Tillman, and Caddo Counties. (Okla. Coop. Sur.). NEW MEXICO - No larvae found in green cotton bolls in Quay, Curry, and Roosevelt Counties. (Mathews). CALIFORNIA - Recovered tenth moth of season on October 22. Total of 8 moths trapped in Tulare County. In Kern and Fresno Counties, 1 moth each to date. No larvae recovered in San Joaquin Valley this year. Total of 89,000,000 sterile moths released in Kern and Tulare Counties to date. (PPD).

A WHITEFRINGED BEETLE (Graphognathus leucoloma fecundus) - SOUTH CAROLINA - Specimens collected at Spartanburg, Spartanburg County, by W.B. Lott. This is a new county record. Determined by V.H. Owens, confirmed by R.E. Warner. (McCaskill).

WOOLLY WHITEFLY (Aleurothrixus floccosus) - CALIFORNIA - Survey for release sites for parasites completed. About 22,400 properties surveyed and 103 suitable release sites selected. Parasite releases continued with about 1,000 released; total released 18,081 to date. Evidence of colonization noted on 12 properties. Eretmocerus paulistus (an eulophid wasp) apparently established; adults appearing at release sites. (Cal. Coop. Rpt.).

DETECTION

New State Records - A LACE BUG (Corythucha montivaga) - CALIFORNIA - Mono County. (p. 742). A MEGALOPYGUD MOTH (Norape ovina) - TENNESSEE - Knox County. (p. 742).

New County Records - AN APHID (Stegophylla quercina) MARYLAND - Wicomico (p. 742). EUROPEAN CORN BORER (Ostrinia nubilalis) ALABAMA - Clay (p. 730). EUROPEAN CRANE FLY (Tipula paludosa) WASHINGTON - San Juan (p. 743). NORTHERN CATTLE GRUB (Hypoderma bovis) ILLINOIS - Ogle, Schuyler, Madison, Perry, St. Clair, William-son (p. 742). SOUTHWESTERN CORN BORER (Diatraea grandiosella) KENTUCKY - Edmondson, Simpson, Allen (p. 730). A WHITEFRINGED BEETLE (Graphognathus leucoloma fecundus) SOUTH CAROLINA - Spartanburg (p. 743).

HAWAII INSECT REPORT

Sorghum - CORN EARWORM (*Heliothis zea*) light on young sorghum heads in 250 acres; A PYRALID MOTH (*Cryptoblabes aliena*) heavy in mature seedheads in about 400 acres; CORN LEAF APHID (*Rhopalosiphum maidis*) heavy in 350 acres of 12-inch tall sorghum at Kilauea, Kauai. Parasitism by *Lyoiphlebius testaceipes* (a braconid) heavy; as much as 90 percent of *R. maidis* parasitized. (Sugawa).

General Vegetables - Adults of Greenhouse WHITEFLY (*Trialeurodes vaporariorum*) trace to light in 0.5 acre of bittermelon at Pupukea, Oahu; eggs and nymphs moderate. Larvae and adults of DIAMONDBACK MOTH (*Plutella xylostella*) moderate in 2 acres of head cabbage at Kula, Maui. Larvae affected 75 percent of plant leaves of recently harvested heads; about 2-6 larvae per leaf. (Ah Sam, Miyahira). A MEMBRACID BUG (*Antianthe expansa*) moderate in small backyard planting of red pepper at Nuuanu; as many as 29 nymphs and adults per 6-inch of stem. Negative on adjacent tomato planting. Moderate to heavy on same crop at Liliha, Oahu (adjacent to Nuuanu). These sites, about 11 miles from original point of host association in Waipahu and Ewa area, indicate may be fairly widespread. Damage by CHINESE ROSE BEETLE (*Adoretus sinicus*) and TOBACCO FLEA BEETLE (*Epitrix hirtipennis*) light to moderate to 90 percent of leaves in 0.4 acre planting of eggplant at Pupukea, Oahu. Adults of *E. Hirtipennis* light; average less than 1 per leaf. Larval mines of LEAF MINER FLIES (*Liriomyza* spp.) moderate to heavy in 0.5 acre of tomato at Pupukea, Oahu. Moderate to heavy mines on older leaves in 20+ acres of watermelon at Kahuku; adults heavy, as many as 25 per leaf; averaged 5. (Kawamura).

Fruits and Nuts - LARGE MANGO TIP BORER (*Bombotelia jocosatrix*) damage light to 100+ mango trees at Haiku, Maui; about 10 percent of young terminal leaves affected. (Miyahira). Parasitism of a SWALLOWTAIL BUTTERFLY (*Papilio xuthus*) eggs by *Trichogramma* sp. (a minute egg parasite) decreased. On Oahu, field collected eggs parasitized as follows: Six of 19 at Ewa (32 percent); 12 of 24 at Moanalua (50 percent) and 4 of 27 at Pauoa (15 percent). (Au et al.).

Weather of the week continued from page 738.

Thermal, California, and Phoenix, Arizona, registered 85° Thursday afternoon. The eastern third of the Nation continued unseasonally mild with minimum temperatures only slightly lower than normal maximums. Weekly average temperatures were below normal from the Pacific coast to the western edge of the Great Plains and above normal from the Great Plains to the Atlantic Ocean. Much of the area from Minnesota to New York and southward to Tennessee averaged 6° to 14° warmer than normal.

Distribution of Oldhouse Borer

Hyloterpes baicalis



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